

**REMARKS**

This communication responds to the Office Action mailed on April 7, 2006. No claims are amended, no claims are canceled, and no claims are added. As a result, claims 1-23 are now pending in this Application.

**§102 Rejection of the Claims**

Claims 1-23 were rejected under 35 USC § 102(e) as being anticipated by Raghavan et al. (U.S. 2003/0134607; hereinafter “Raghavan”). The Applicant does not admit that Raghavan is prior art and reserves the right to swear behind this reference at a later date. In addition, because the Applicant asserts that the Office has not shown that Raghavan discloses the identical invention as claimed, the Applicant traverses this rejection of the claims.

It is respectfully noted that anticipation under 35 USC § 102 requires the disclosure in a single prior art reference of each element of the claim under consideration. *See Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983))

 (emphasis added). “The *identical invention* must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131 (emphasis added).

In the Office Action, it is asserted that Raghavan discloses “coupling a plurality of receivers to a first frequency reference to communicate with a first station over a corresponding plurality of signal paths (which reads on paragraph 0026); and selectively coupling one of the plurality of receivers to a second frequency reference to communicate with a second station over a signal path not included in the plurality of signal paths (which reads on paragraph 0122).” However, a careful reading of Raghavan reveals that this assertion is incorrect. This conclusion may be better understood by considering the reference in more detail.

Raghavan discloses communicating data between components in a system comprising a transmitter system 200 and a receiver system 220 coupled through a single transmission medium 250. *See Raghavan, [0055] – [0059] and FIGs. 2A, 2C.* Each of the plurality of receivers 222-1 through 222-K of the receiver system 220-p simultaneously receive a summed signal Z(t) comprising N-bit parallel data allocated into K+1 individual channels. *See Raghavan [0060] and [0067].*

More specifically, Raghavan's transmitter system 210-p receives an N-bit parallel data signal at a bit allocation block 211. *See Raghavan, [0060].* The bit allocation block 211 “segregates the N input bits into K+1 individual channels such that there are n through nK bits input to transmitters 212-1 through 212-K, respectively, and no bits input to baseband transmitter 217. Transmitter 217 and transmitters 212-1 through 212-K transmit into (K+1) channels, including channel 301-0 (baseband) and channels 301-1 through 301-K. *See Raghavan, [0060]-[0063].* “Each of transmitters 212-1 through 212-K encodes the digital data input to it and outputs a signal modulated at a different carrier frequency. Therefore, the  $n_k$  digital data bits input to transmitter 212-k, an arbitrary one of transmitters 212-1 through 212-K, is output as an analog signal in a kth transmission channel at a carrier frequency  $f_k$ . Additionally, baseband transmitter 217 transmits into the baseband channel.” *Id.*

“[T]he analog output signal from each of transmitters 212-1 through 212-K,  $y_1(t)$  through  $y_K(t)$ , then represents the transmission signal in each of channels 301-1 through 301-K, respectively. Signals  $y_1(t)$  through  $y_K(t)$ , then, are input to summer 213 and the summed analog signal output from summer 213 can be input to a high pass filter 215. The output signal from high pass filter 215 is input to summer 216 where it is summed with the baseband signal  $y_0(t)$  from baseband transmitter 217. ... The output signal from summer 216,  $z(t)$ , is input to an output driver 214 ... the signal  $Z(t)$  shows the effects of transmission through the transmission medium 250 on  $z(t)$ .” *See Raghavan, [0064]-[0066].*

“The signal  $Z(t)$  is input to each of receivers 222-1 through 222-K and into baseband receiver 223 [of the receiver system 220-p]. *See Raghavan, [0067].* “Receivers 222-1 through 222-K demodulate the signals from each of the transmission channels 301-1 through 301-K, respectively, and recover the bit stream from each of carrier frequencies  $f_1$  through  $f_K$ , respectively.” *Id.* “Baseband receiver 223 recovers the bit stream which has been transmitted

into the baseband channel. The output signals from each of receivers 222-1 through 222-K, then, include  $n_1$  through  $n_K$  parallel bits, respectively, and the output signal from baseband receiver 223 includes  $n_0$  parallel bits. The output signals are input to bit parsing 221 where the transmitted signal having N parallel bits is reconstructed.” *Id.* In one example, the “center frequencies of channels 301-1 through 301-5 can be  $4f_0$ ,  $5f_0$ ,  $6f_0$ ,  $7f_0$ , and  $8f_0$ , respectively, with  $f_0$  being about 312.5 MHz. Raghavan [0115].

Thus, it can be seen that Raghavan teaches the segregation of N-bit parallel data into K+1 individual channels, each having a frequency different from the others. These channels are used to cooperatively transmit the N-bit parallel data signal to a plurality of receivers 222-1 through 222-K. In other words, the K+1 channels are used as a whole to transmit the N-bit parallel data signal.

The reader is respectfully requested to consider Raghavan’s teaching in contrast with the embodiments claimed by the Applicant, including “selectively coupling one of the plurality of receivers to a second frequency reference to communicate with a second station over a signal path not included in the plurality of signal paths.” First, Raghavan does not disclose first and second frequency references; only a single reference is taught: “... system 220-p also receives the reference clock signal from PLL 203, which can be used to generate internal timing signals.” Raghavan [0067]. Even if multiple frequency references were taught, the Applicant was unable to find anything in Raghavan showing that receivers 221-1 through 222-K and 223 can be selectively coupled to more than one reference.

Second, the cited paragraph [0122] in Raghavan describes the cancellation of signals between channels that have cross-channel interference, and filtering out the baseband signal component. Nothing therein describes “communicating with a second station over a signal path not included in the plurality of signal paths,” as claimed by the Applicant.

Thus, the receivers 221-1 through 222-K and 223 of Raghavan do not permit “selectively coupling one of the plurality of receivers to a second frequency reference to communicate with a second station over a signal path not included in the plurality of signal paths” as claimed by the Applicant in independent claims 1-8. Nor does Raghavan teach that “at least one of the plurality of receivers can be selectively coupled to the first frequency reference or to a second frequency

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reference to communicate with a second station using a signal path not included in the plurality of signal paths" as claimed by the Applicant in independent claims 13-20.

Since Raghavan does not teach the identical invention claimed, it is believed that independent claims 1, 8, 13, and 20 (as well as all claims depending from them) are in condition for allowance. Reconsideration and withdrawal of the rejection of claims 1-23 under § 102 is respectfully requested.

**CONCLUSION**

The Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Applicant's attorney at (210) 308-5677 to facilitate prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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